

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
25 August 2005 (25.08.2005)

PCT

(10) International Publication Number
WO 2005/078918 A1

(51) International Patent Classification⁷: **H03F 1/32**, 3/30

(21) International Application Number:
PCT/SE2005/000197

(22) International Filing Date: 15 February 2005 (15.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0400374-5 18 February 2004 (18.02.2004) SE

(71) Applicant and

(72) Inventor: **SANDQUIST, Peter** [SE/SE]; Runvägen 8, 7tr.,
S-141 48 Huddinge (SE).

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,

KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

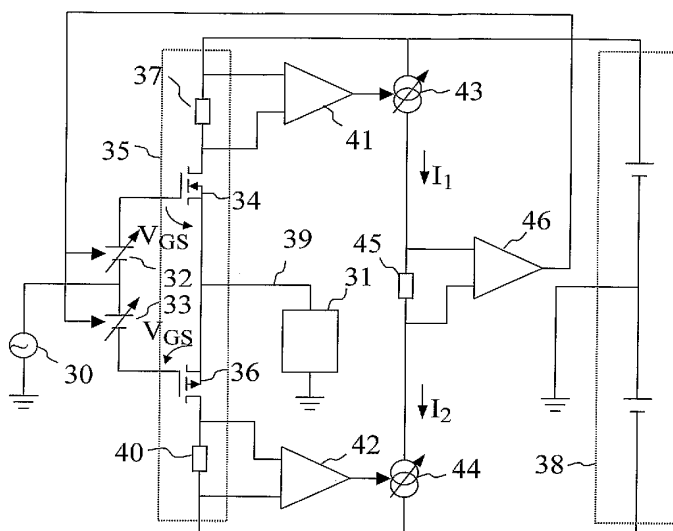
— *of inventorship (Rule 4.17(iv)) for US only*

Published:

— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **LOAD-INVARIANT AMPLIFIER**



(57) **Abstract:** A push-pull amplifier having low output impedance and low crossover distortion is provided. A least one of a current through a sourcing current path of an output stage and a current through a sinking current path of the output stage is determinative of a quiescent current control signal produced for controlling a quiescent current of the amplifier. The quiescent current is controlled by symmetrically controlling a bias voltage applied to a sourcing active output device and a bias voltage applied to a sinking active output device in response to the quiescent current control signal. An output stage sourcing control signal for controlling the sourcing active output device is referenced directly to a shared terminal of the sourcing active output device, and an output stage sinking control signal for controlling the sinking active output device is referenced directly to a shared terminal of the sinking active output device.

WO 2005/078918 A1